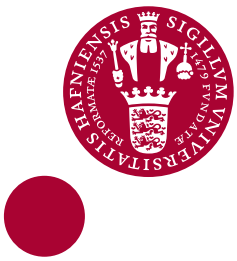

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Sandøe, Peter; Gamborg, Christian

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Animal Welfare Impact Assessments: A good way of giving the affected animals a voice when trying to tackle wild animal controversies?

Sandøe, P.[12] *and Gamborg, C.*[1*]*,*
[1]*University of Copenhagen, Department of Food and Resource Economics, Rolighedsvej 25, 1958 Frederiksberg C*
[2]*University of Copenhagen, Department of Geosciences and Natural Resource Management*
[3]*University of Copenhagen, Department of Large Animal Sciences*

[*1]*Corresponding author:chg@ifro.ku.dk*

Abstract

Control of wild animals may give rise to controversy, as is seen in the case of badger control to manage TB in cattle in the UK. However, it is striking that concerns about the potential suffering of the affected animals themselves are often given little attention or completely ignored in policies aimed at dealing with wild animals. McCulloch and Reiss argue that this could be remedied by means of a "mandatory application of formal and systematic Animal Welfare Impact Assessment (AWIA)". Optimistically, they consider that an AWIA could help to resolve controversies involving wild animals. The aim of this paper is to evaluate the potential of AWIA. We begin by showing how ideas akin to AWIA already play a significant role in other animal ethics controversies, particularly those concerning laboratory animal use and livestock production; and we bring in lessons learnt from these controversies. Then we comment on the suggested development and application of AWIA in the case of badger control. Finally, we discuss the prospects of applying AWIA to other sorts of wild animal controversy. We argue that the AIWA, as developed by McCulloch and Reiss, relies on several dubious premises, including that killing is a welfare issue. Furthermore, we argue that AWIA is unlikely to prevent serious moral disagreements over how to weigh concerns about wild animals against priorities in human health, the health of domestic and farm animals, and biodiversity, but that it may nonetheless serve to limit harms imposed on the wild animals.

1. Introduction

We tend to regard animals living in the wild with considerable interest and, sometimes, even affection (Manfredo, 2008). However, wildlife management also gives rise to conflicts (Swan et al., 2017). These conflicts, which we will call "wild animal controversies", involve a range of issues, many of which revolve around human livelihood and well-being, livestock protection and nature conservation. Controversy is often caused by human interventions that are designed to control populations of wild animals and to minimise what are perceived as their negative impacts (Woodroffe et al., 2005). Examples include the removal of feral cats and racoons where they are seen as a danger to indigenous animals; the management of naturally occurring wildlife, such as white deer in US suburban areas; the control of wild animals which act as vectors of diseases that threaten humans, such as foxes carrying rabies; and the exclusion of wild animals threatening the health of farm animals, such as wild hogs posing a risk of swine fever in domesticated pigs. Of course, the problem of badgers and TB in cattle addressed by McCulloch and Reiss in this issue is another case in point.

In most cases there is no single answer to the question what our priorities should be when we are faced with problems such as these. Competing values and different priorities create ethical dilemmas and disagreements (Gamborg et al., 2012). However, it is striking that concerns about the potential suffering of the affected animals themselves – that is, about wild animal welfare – are often given little attention or completely ignored in wild animal controversies. This ought to change, according to McCulloch and Reiss. In their papers, they argue for "the mandatory application of formal and systematic Animal Welfare Impact Assessment (AWIA) to all policy which potentially significantly impacts the interests of sentient animals". For both authors, an important reason for making this suggestion is that AWIA can "provide objective data to feed into policy making", thereby creating some common ground for a discussion that otherwise tends to become polarized from the outset.

The aim of this paper is to evaluate the potential of AWIA to give concerns about animal welfare a key role in handling of wild animal controversies. We begin by showing how ideas akin to AWIA already play a significant role in other animal ethics issues, particularly those concerning laboratory animal use and livestock production. Then we comment on the development and application of AWIA in the case of badger control, as presented by McCulloch and Reiss. Finally, we discuss the prospects of applying AWIA to other sorts of wild animal controversy. We will not discuss the scientific underpinning of the claim that badger culling will actually serve to protect cattle against TB but rather base our discussion on the hypothetical assumption that badger culling will serve this purpose. We argue that AWIA is unlikely to prevent serious moral disagreements over how to weigh concerns about wild animal welfare against priorities in human health, the health of domestic and farm animals, and biodiversity, but that it may nonetheless serve to limit harms imposed on the affected animals – wild or otherwise.

2. AWIA and current attempts to factor in animal welfare in wild animal controversies

Disagreements over the use of animals in research, originally focusing on "vivisection", go back to the nineteenth century at least, where they developed into a public debate, not least in the UK. The

debate over farm animal production began later, after the Second World War, in reaction to the methods of modern intensive farm animal production. In both of these controversies two highly influential responses to the question of how sentient animals could continue to be used in an ethically acceptable way involved the idea of welfare assessment. They both originated in the UK, and were separated by a period of ten years.

The first response was the result of efforts made by the moderate animal welfare NGO, *Universities Federation for Animal Welfare* (UFAW), which started to argue for the humane use of laboratory animals in the mid-1950s. A study by the scientists William Russell and Rex Burch sponsored by UFAW led to a book, *The Principles of Humane Experimental Technique* (1959), which formulated the "3Rs" principles: Replacement, Reduction and Refinement. The two first Rs limited negative welfare impacts by reducing numbers of affected animals – either by finding ways to obtain results without using live animals or by using a smaller number of animals in each experiment. The aim of the last R, Refinement, was "simply to reduce to an absolute minimum the amount of distress imposed on those animals that are still used" (Russell & Burch 1959, p. 134). To this day, the 3Rs are a cornerstone of ethical laboratory animal use – from an animal welfare point of view – across the globe, and they are now written into EU legislation.

The second response emerged from a report by a committee set up by the British government following the public outcry over intensive livestock farming prompted by Ruth Harrison's book *Animal Machines*, published in 1964. The recommendations of the so-called Brambell Committee (Brambell, 1965) formed the basis of subsequent British and European animal welfare legislation. One important recommendation made by the committee was that studies based on methods from physiology and ethology should be treated as essential elements of animal welfare assessment which, in turn, should underpin animal welfare legislation. Although this requirement served initially to limit reform until scientific results were available, it eventually had a huge impact on the way farm animal welfare is assessed, and subsequently managed and regulated, first in Europe and increasingly thereafter across the globe.

Looking back on these initiatives, it is important to recognise that the aim of securing common ground for discussions about how to treat animals in research and agriculture has only partially been met. Thus in the area of laboratory use there is, among other things, an ongoing controversy between those who insist on a moratorium on animal use and those who are content to ensure that animal use is humane – that is, between those who favour "Replacement" and those who favour "Refinement" (Sandøe et al 2015). Similarly, in farm animal welfare there are ongoing discussions about how to define animal welfare and how to balance it with other concerns, notably economic priorities (Sandøe & Jensen 2013). This second discussion seems to be especially relevant to the question of how effectively AWIA can be used to inform decisions about badger control.

3. Using AWIA in dealing with badger control

The badger is common in the British countryside and is not classified as an endangered species. It has powerful symbolic value, and is portrayed almost as an emblem of the British (and particularly

the English) countryside. Thus, it comes as no great surprise that "few subjects are likely to enrage British wildlife lovers more than the idea of a badger cull" (de Castella 2010). It is a struggle which has divided both the country(side) and the scientific community (Macdonald et al. 2006). Given this, AWIA could be seen as part of a welcome attempt to make welfare impact of possible management options part of the basis for reaching, at least partial agreement on what to do.

That said, the AWIA of badger control undertaken by the authors gives rise, in our view, to three concerns. (1) This AWIA imports at least two very controversial premises: (a) that slaughter and other forms of killing are a welfare issue in their own right; and (b) that limiting the number of cows that need to be slaughtered is mainly a welfare issue rather than a question of preventing harm to the economy of farmers. In addition, (2) the actual application of AWIA to badger culling seems somewhat crude and leaves a lot of uncertainty about the actual welfare consequences for the affected animals. Finally, (3) AWIA is in some places described by the authors, very ambitiously in our view, as an undertaking that will serve as a complete ethical assessment.

In relation to the actual application of AWIA to badger control, the authors support AWIA by noting that the current assessment is conducted on a "case-by-case basis [which] is not sufficiently rigorous" (p. 29) and which allegedly makes it possible to leave out impacts "that are of critical importance to sentient animals" (ibid.). Thus, although current assessments of badger culling take into account some aspects of animal welfare by examining culling methods and especially the potential pain and suffering associated with the method applied at one end, and broader ecological impacts at the other end, the argument is that this kind of assessment overlooks an important welfare issue: the killing of badgers.

It can certainly be argued that killing an animal is a welfare issue in the sense that the animal will lose whatever future welfare it would have enjoyed had it not been killed (Kasperbauer & Sandøe 2016). But it is not necessarily a welfare issue if we equate welfare with freedom from suffering: the killing method may, in other words, be painless. By including killing as a welfare issue in its own right the authors are clearly not just providing "objective data to feed into policy making" but are rather making a decidedly controversial claim. The great majority of cattle are slaughtered or culled prematurely. Would the authors consider this as a massive welfare problem? This is not a claim cattle farmers would accept, and therefore it does not fall within the purpose of AWIA as stated by the authors.

With regard to the actual suffering of badgers, welfare is, according to the authors, divided into direct welfare impacts of a cull, such a "being shot and not dying instantaneously" (p. 30) and indirect impacts caused by "the disruption of social groups as a result of badgers being short and disturbance to the badger populations…" (p. 30). Apparently, a two-step impact assessment is carried out, examining the welfare of individuals being killed and the welfare of the populations in turn (The latter might appear to reflect ecological concerns rather than individual animal welfare concerns.) However, the assessment is rather crude. For example, it does not include problems with badgers getting away wounded, and it does not make a comparison with other means of control – for example, the

British Veterinary Association Council have recommended that cage trapping and shooting should be the preferred method (Hirst, 2017).

Perhaps, in developing AWIA further here, we could take a lead from the approach advanced by Littin et al. (2014, p. 282) for welfare assessments of the control of vertebrate 'pests'. In this approach, accurate evaluation of welfare impacts is based on "a combination of behavioural, physiological and pathological indicators". AWIA shares the two dimensions of positive or negative animal welfare impact here: duration (in AWIA divided into 'short', 'medium', 'long') and intensity (in AWIA divided into 'mild', 'moderate', 'strong'). But it is less detailed than the Littin approach and does not distinguish between different kinds of suffering, such as thirst, hunger, cold, pain, distress, isolation, and fear (cf. Littin et al., 2004). Littin and her colleagues say little about the relative importance of these dimensions (and indicators). Here inspiration could be found in the Five Domains Model (Beausoleil and Mellor 2015).

We are unclear whether the ambition of AWIA is to serve as a tool for the assessment of badgers, and cattle, and maximised total welfare, or rather, more modestly, its purpose is to help identify a management option where badger welfare is compromised as little as possible. Sometimes it seems the authors have the former, very demanding, ambition. However, as interesting as this ambition is in theoretical terms, it is not likely to provide common ground for a discussion of badger culling. For the farmers affected by TB, the issue is not primarily about welfare (according to a recent EFSA (2017) opinion, cows do not suffer as a consequence of carrying TB). Rather it is about economic viability versus abstaining from culling badgers. The suggestion that AWIA will solve *this issue* is, in our view, quite unrealistic.

We see more merit in the AWIA as a tool that helps us to deal with wild animal controversies in a manner that minimises negative effects on the welfare of the affected animals relative to the goals of the controversial intervention. Historically, the welfare of free-living wildlife has not received much attention from animal welfare scientists, legislators and the public (Hampton et al., 2015) – discussions of methods used to control such animals excepted, of course. One of the reasons may be, as McCulloch and Reiss grant, that these kinds of assessment are indeed difficult: it is hard to agree on what factors and aspects should be included, and how to quantify, for example, impacts such as perturbation and stress to the badger population.

Important issues needing to be considered in the onward development and potential use of AWIA concern the length of time over which assessments need to be run, and what the indicators for target and non-target species should be. The predictability of the welfare outcome and the rate of welfare outcome success are also important aspects of sound decision making (Dubois et al., 2017). Although some of these things may be hard to define, let alone quantify or measure, the selected indicators may act as a sort of checklist in deliberations on the desirability and feasibility of different policy and management options in wild animal controversies.

4. Prospects of applying AWIA to other wild animal controversies

Wild animal controversies are ubiquitous today. In many, a systematic impact assessment of direct and, especially, indirect impacts on the welfare of affected animals could be helpful.

Let us put the badger case to one side and illustrate this with a different example. Across Europe, Classical Swine Fever (CSF), also known as hog cholera or pig plague, is of growing concern. In some cases it has led to large-scale culling of farmed pigs following infection. Wild boars are potential transmitters of the virus to domestic pigs – for example, via contact with domestic pigs allowed to roam outdoors. This is a serious concern in Denmark: we have the highest number of pigs per capita in the EU, and we have not had an incident of CSF since 1933.

In Denmark, the wild boar was eradicated 250 years ago. However, it is now moving back into Denmark from neighbouring Germany, where the population has expanded rapidly over the last 20 years – something which nature conservation organisations have welcomed as an element in the creation of a more dynamic natural environment. Since 1996 there has been a government order to cull any free-ranging wild boars in Denmark because of the risk of CSF.

In 2005, an extensive risk assessment was carried out, because it had become clear that wild boars might be able to establish themselves in parts of Denmark on the German border despite the culling order (Gamborg & Sandøe, 2006). However, this assessment did not look into potential impacts of the cull on the welfare of the wild boar. As it happens, there were plenty of welfare issues to address: for example, the pest control order permitted boar culling all year round, which meant that piglets could potentially be left without a sow or boar (sometimes twice a year, as wild boars are able to have two litters a year).

Tellingly, a 194-page report on the experience of managing free-ranging wild boar in Sweden and Germany, devotes just one paragraph to animal welfare – and this is in relation to different hunting methods and the risk of wounding the animal (Madsen et al., 2010). This may reflect a wider trend: in an edited volume, published in 2015, on human-wildlife conflicts and how to identify their solution (Redpath et al., 2015) there was no mention of animal welfare issues. Here, a tool like AWIA could have been useful in drawing attention to animal welfare – and especially indirect welfare aspects, as control is usually carried out by hunting, which is generally seen as a relatively painless method, and one in which relatively few incidents of wounding are reported (although in some countries, such as Texas, USA, severe cruelty in the hunting of wild boar has been reported (Hirtzer 2017)).

The inclusion of animal welfare in policy decisions which are likely affect sentient animals in a significant way will, of course, always leave room for some moral disagreement. There will be disagreement both over the welfare assessment itself and over the balancing of different concerns such as human welfare, human and animal health, and biodiversity, against concerns about animal welfare. Therefore, a modest approach with a focus on minimizing the suffering of affected animals might be the most productive. The potential to find common ground between conservationists and

animal welfare activists has been shown by Dubois and Fraser (2013). Of course, disagreement may nevertheless occur – for example, simply because the most humane methods for controlling wild animals are not always most effective (Littin and Mellor, 2005).

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